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The Pervasive Power of PowerPoint: How a Genre of Professional Communication Permeates Organizational Communication

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www.egosnet.org/os**Dennis Schoeneborn**

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Abstract

This paper examines the pervasive role of Microsoft's presentation software PowerPoint as a genre of professional and organizational communication. Frequently, PowerPoint is not only used for the primary function it was initially designed for, i.e., facilitating live presentations, but also for alternative purposes such as project documentation. Its application in a neighboring domain, however, poses a functional dilemma: does the PowerPoint genre preserve the features of its primary function, i.e., presentation, or rather adapt to the new function, i.e., documentation? By drawing on a communication-centered perspective, this paper examines PowerPoint's role in the domain of project documentation as a clash between the constitutive affordances of professional and of organizational communication. To investigate this issue empirically, I conducted a case study at a multinational business consulting firm. The study allows identification of three distinct PowerPoint subgenres, which differ in how they adapt to the function of project documentation. This paper contributes to organization studies by specifying the boundary conditions under which a genre of professional communication such as PowerPoint can be expected to maintain its genre-inherent characteristics even in the face of contradictory organizational requirements and to impose these characteristics on a neighboring domain of organizational communication practices.

Keywords

genre analysis, organizational communication, PowerPoint, professional communication, project documentation

From the business world to educational settings, presentations before a live audience are ubiquitous. Presentations are typically facilitated by what is called "slideware," i.e., software that helps create and project slides onto a screen or directly onto a wall. The paramount example of slideware is Microsoft's PowerPoint™, one of the most widely used software tools in professional and organizational communication today (Gabriel, 2008, p. 255). PowerPoint was introduced as part of the

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Windows 3.0 bundle in 1990 and has found increasing application in organizational contexts ever since. In recent years, PowerPoint's popularity has also attracted a growing interest among scholars from the social sciences. For instance, a number of studies have shed light on its use in strategy meetings (Kaplan, 2011; Spee & Jarzabkowski, 2011), educational settings (Gabriel, 2008; Knoblauch, 2008), public announcements (Stark & Paravel, 2008; Tufte, 2003), and in professional and organizational communication more generally (Yates & Orlikowski, 2007). Within this stream of literature, scholars tend to be interested either in PowerPoint slides as facilitators of face-to-face presentations (e.g., Gabriel, 2008; Knoblauch, 2008; Tufte, 2003) or in their converted form as documents that can be distributed digitally (e.g., Spee & Jarzabkowski, 2011; Stark & Paravel, 2008; Yates & Orlikowski, 2007). In one way or another, all these works critically address the question of how PowerPoint as a medium of communication shapes the ways in which individuals express themselves in professional or organizational contexts. Most of them, however, tend to look at the development of the PowerPoint genre in isolation and do not consider how it interrelates with other communicative practices in organizational settings.

In this paper, I aim to fill this gap in the emerging literature on PowerPoint by exploring a paradox that springs from the software's extensive use in organizational communication: although PowerPoint was primarily designed as a means of facilitating face-to-face presentations, it is increasingly used also as a means of documentation—for instance, as a substitute for meeting minutes or project reports (Yates & Orlikowski, 2007). However, these two functions, *presentation* and *documentation*, tend to contradict each other (see Tufte, 2003): on the one hand, PowerPoint guidelines advise users to keep to as few words per slide as possible (or to use graphical elements instead) in order to avoid distracting the audience from the oral explanations that accompany the live presentation. On the other hand, using PowerPoint slides for documentation purposes requires that a sufficient amount of text is included so that a reader can make sense of their content contextually. This shift in “the object's intended use or function” (Faulkner & Runde, 2009, p. 442) points to an important issue: what happens if a genre of professional or organizational communication becomes applied in a domain of practices that it was not initially designed for?

In this paper, I investigate the “functional dilemma” posed by the PowerPoint genre (Yates & Orlikowski, 2007) in the context of management consulting (Sturdy, Handley, Clark, & Fincham, 2009). As the studies by Kaplan (2011) and Yates and Orlikowski (2007) highlight, slideware like PowerPoint is closely linked to the work practices of management consultancy as a profession, given that the creation and presentation of PowerPoint slide decks are part of a consultant's day-to-day work. However, the practice of transforming PowerPoint presentations into digital documents (Yates & Orlikowski, 2007) that are shared among consultants is driven by the *organizational* (rather than professional) requirements of consulting firms: in order to ensure their competitive advantages, these firms demand that documents be shared among colleagues, so that the knowledge generated in projects can be “captured” and utilized to enhance in-house “cross-project learning” (Newell, 2004).

To examine the PowerPoint dilemma within the nexus of professional and organizational communication, I suggest turning to an emerging stream of research in organization studies that defines communication as constitutive of both professions and organizations (e.g., Ashcraft, Kuhn, & Cooren, 2009; Cheney & Ashcraft, 2007). This stream of research has come to be called “communication as constitutive of organizations” or “CCO” (for a recent overview, see Cooren, Kuhn, Cornelissen, & Clark, 2011). The main assumption of this perspective is that social phenomena such as organizations or professions do not have a guaranteed existence; instead, they need to be continuously evoked *in* and *through* language use and its material manifestations (Cooren, 2012; Kuhn, 2008). I argue that the CCO perspective lends itself particularly well to studying the

functional dilemma that the PowerPoint genre presents, for three main reasons: first, it sheds light on the precarious character of professions and organizations as processual phenomena (Cooren et al., 2011, p. 1150). Second, the CCO view highlights the importance of material objects of all kinds—texts, tools, or software such as PowerPoint—as elements that stabilize organizations (e.g., Cooren, 2004, 2006) as well as professions (e.g., Cheney & Ashcraft, 2007). This is closely connected to the precarious character of professions and organizations, which, as a result, need to become stabilized by forming a network of communicative practices over time (Blaschke, Schoeneborn, & Seidl, 2012). Third, especially because communication is the shared base element of all social phenomena (Cooren, 2012; Luhmann, 1995), a communication-centered view helps shed light on PowerPoint as a site where the constitutive requirements of a profession and an organization collide.

To examine how the functional dilemma between presentation and documentation that is posed by the PowerPoint genre is manifested in organizational practice, I conducted an empirical case study at a globally operating business consulting firm. This empirical setting is ideal for investigating the very different functions of presentation and documentation by examining how PowerPoint presentations are used in the domain of project documentation, examining the practices that aim to facilitate the exchange of knowledge generated in different projects at a cross-project level (Ayas & Zeniuk, 2001; Newell, 2004; Newell, Bresnen, Edelman, Scarbrough, & Swan, 2006). More specifically, I have examined whether the manifestations of the PowerPoint genre in practice reflect more closely the presentation or the documentation function. For this purpose, 565 PowerPoint documents were collected from two cross-project learning databases in use at the case company. To achieve a deeper understanding of cross-project learning practices and of the role of PowerPoint documents in this context, I additionally conducted 14 interviews with organization members who were involved in these activities, either as consultants or as members of the firm's knowledge management division.

As the empirical study shows, in this case the presentation–documentation dilemma that PowerPoint poses as a genre of professional and organizational communication was solved by the differentiation of PowerPoint into three subgenres—“lessons learned,” “final presentations for clients,” and “citations of past projects”—that fulfill the requirements of the documentation domain to varying degrees. Although the electronic databases were set up primarily for documentation purposes, a large share of documents exhibited mainly features of the presentation mode; essentially, the affordances of professional communication seemed to predominate over organizational affordances. To extend the study's findings beyond this particular case, I finally develop propositions (presented in the final section) on the boundary conditions under which the dominance of the professional genre—PowerPoint, in this case—is particularly likely.

The contributions of this study are threefold: first, I respond to the recent call for more phenomenon-based research in organization studies (von Krogh, Lamasra, & Haefliger, 2012). This paper feeds directly into the emerging literature on the PowerPoint phenomenon as a widespread medium and a genre of professional and organizational communication (e.g., Gabriel, 2008; Kaplan, 2011; Yates & Orlikowski, 2007). In this context, my study enriches the existing literature by examining in depth how this genre interrelates with neighboring domains of communicative practices (in this case, project documentation). Second, this research also contributes to broader debates in organization studies on what happens if a particular technology enters a domain of communicative practices other than its domain of origin (Faulkner & Runde, 2009; Leonardi, 2011; Orlikowski, 2007). By looking at a setting where a genre of professional communication (exemplified by PowerPoint) can impose its characteristics onto a domain of organizational communication (exemplified by project documentation) this paper specifies the

boundary conditions under which such processes are likely to occur. Third, this study contributes to the emerging CCO perspective in organization studies (Ashcraft et al., 2009; Cooren et al., 2011), as it is one of the first empirical inquiries into a setting where the communicative constitution of a profession and of an organization collide. Thus, my study extends the CCO view beyond organizations to wider social phenomena (Sillince, 2010), e.g., professions and occupations (Cheney & Ashcraft, 2007).

PowerPoint as a Genre of Professional and Organizational Communication

In recent years, researchers have been paying increasing attention to the role of PowerPoint in organizational communication (see, for instance, Kaplan, 2011; Yates & Orlikowski, 2007). Tufte (2003) kicked off the PowerPoint debate with a provocative essay in which he essentially criticized the software for elevating format over content. In other words, he argued that PowerPoint promotes a format where the content is highly compressed (typically, into only a few words per slide). As a result, it is hard to make sense of slides without knowing the context, i.e., the purpose for which they have been created. Tufte (2003) names bullet-point lists, extensive usage of graphical elements, and large font sizes as the most common features of PowerPoint presentations. According to him, these elements constitute the “cognitive style” of PowerPoint, which tends to oversimplify the presentation of information: “A PowerPoint slide typically shows 40 words, which is about 8 seconds worth of silent reading material” (Tufte, 2003, p. 12).

Tufte goes on to argue that PowerPoint’s context-reduced style becomes particularly problematic as soon as PowerPoint documents leave the context of their initial creation or presentation and are distributed further afield. He powerfully illustrates this argument by drawing on the case of NASA’s fatal *Columbia* disaster in 2003. In the NASA case, the technicians used PowerPoint slides not only for presentations in face-to-face meetings but also for documentation purposes. According to Tufte (2003, p. 8), it was the bullet-point style of PowerPoint which led to an underestimation of the crucial fault (which remained hidden on the fourth sublevel of a hierarchical bullet-point list) that finally caused the fatal accident.

In contrast, authors who adopt a “practice lens” in order to study PowerPoint (e.g., Kaplan, 2011; Spee & Jarzabkowski, 2011; Yates & Orlikowski, 2007) contest Tufte’s assumption that the negative effects of PowerPoint can be ascribed to the software itself. Instead, these authors differentiate between the *medium* (i.e., the software or technological tool) and the *genre* (i.e., the recurrent practices of the medium’s use in professional or organizational communication):

We [define] genres of organizational communication as socially recognized types of communicative actions—such as memos, meetings, expense forms, training seminars—that are habitually enacted by members of a community to realize particular social purposes. (Orlikowski & Yates, 1994, p. 542)

In line with this distinction, hereafter I will use the term “PowerPoint” whenever I refer to the software as a medium or technology, and “PowerPoint genre” to signify the socially recognized types of communicative actions that arise when actors (e.g., members of an organization and/or profession) make use of the software. This distinction is primarily analytical because, in practice, the medium and its (various) genres are inherently entangled. Such entanglement is aptly described by Orlikowski’s (2007) notion of “sociomateriality,” a hybrid term that underlines the inseparability of communicative practices and the material artifacts that embody them, e.g., texts, tools, or technologies (see also Barad, 2007).

In light of the distinction between medium and genre, it is worth examining in greater depth how PowerPoint is used in practice and how certain patterns of its usage become institutionalized, thus forming the “genre” of PowerPoint-based communication. Recent publications (e.g., Kaplan, 2011; Stark & Paravel, 2008; Yates & Orlikowski, 2007) emphasize that PowerPoint is used not only to facilitate presentations to a live audience but also for further purposes. Stark and Paravel (2008), for instance, note that PowerPoint presentations can morph easily from a live demonstration to circulating digital documents. Kaplan similarly asserts that PowerPoint documents today “operate in multiple forms: projected in slide shows, printed out for handouts, distributed via e-mail, etc.” (Kaplan, 2011, p. 322).

Yates and Orlikowski (2007, p. 79) observe that PowerPoint presentations are particularly widespread in project-based organizations, such as consulting firms. Indeed, PowerPoint “decks” or slideshows typically represent the main product of the project work (Kaplan, 2011, p. 320). The close interrelation between the PowerPoint genre and the day-to-day work practices and identity of the consulting profession has been emphasized in several publications (e.g., Bloomfield & Vurdubakis, 2002; Whittle, 2006). This interrelation can be seen as indicative of the theoretical assumption that certain genres can be central to and constitutive of a profession—see, for instance, Devitt’s study (1991) on the importance of various textual genres for tax accountants or Schryer and Spoel’s study (2005) on the formative role that medical records play in shaping the identity of the healthcare profession.

All these studies indicate that the PowerPoint genre plays a salient role in shaping the identity of the consulting profession, which, on the whole, is rather weakly defined (Muzio, Kirkpatrick, & Kipping, 2011, p. 809; Ruef, 2002, pp. 74–75). Like the management “profession” (Khurana, 2007), consulting lacks the certified standards or educational requirements that characterize more strongly defined professions (e.g., the medical profession, the legal profession, or accountancy). At the same time, the lack of standardization is considered to contribute significantly to the consulting profession’s success, too, as Glückler and Armbrüster (2003, p. 277) emphasize: “In contrast to professions such as medicine or accounting, consultants may actually benefit from the absence of a clearly defined and codified body of knowledge and the consequent inability of clients to assess the quality of their service.”

In the light of the above, I put forth the argument that, because PowerPoint affects the consulting profession as a whole, it needs to be seen as a genre not only of *organizational* but also of *professional* communication. Indeed, as Yates and Orlikowski (2007) report, PowerPoint has gained particular importance both as a tool that facilitates the presentations of consultants to clients and also as a substitute for the traditional genre of the project report (Yates & Orlikowski, 2007, p. 79). The authors argue, however, that as soon as PowerPoint presentations become the *only* textual reference to the progress and outcome of a specific project, a conflict of “genre functions” is likely to arise between the software’s external *presentation* function and internal *documentation* function:

[The] deck of PowerPoint slides is expected to serve two different purposes: first, to function as a visual aid supporting an oral (informal) presentation; and second, to perform as a stand-alone deliverable (in many cases the only deliverable) reporting the results and conclusions of a project. PowerPoint texts created with this dual purpose typically have too much content to be effective presentation aids ... and too little content and context ... to fulfill expectations for the report genre. (Yates & Orlikowski, 2007, p. 79)

This conflict between the two genre functions of PowerPoint can be seen as the manifestation of the underlying question of how various practices of professional or organizational communication interrelate and shape one another. Organizational communication scholars have typically

studied the impact of a single sociomaterial practice on organizations and organizing (e.g., instant messaging, Rennecker & Godwin, 2005; or smartphones, Mazmanian, Orlikowski, & Yates, forthcoming). In line with such studies, PowerPoint offers the opportunity to examine what happens when a new technology enters a new domain of practices that it had not been designed for initially (e.g., Faulkner & Runde, 2009; Leonardi, 2011). This brings to mind what Yates, Orlikowski, and Okamura (1999, pp. 98–99) refer to as “genre migration,” i.e., the largely unreflective extension of a given communicative practice into a neighboring domain.

Previous works on such shifts include, for instance, Faulkner and Runde’s study (2009) of how the phonograph turntable was transformed from a mere playback device into a musical instrument, as DJing evolved from playing records into “turntablism” (i.e., creating original sounds by skillfully “scratching” the records) as a professional practice. Their study shows that there can be multiple shifts in the usage of the same technological object, which in turn trigger changes in how the profession that is closely associated with that object is communicatively constituted. Similarly, Leonardi (2011) studied how a simulation tool for crash tests in the automotive industry became “imbricated” (Taylor & Van Every, 2011) over time, i.e., he investigated to what extent the technology became shaped and textured by new organizational practices. In view of the above, examining PowerPoint’s extended use in a new domain of practices—i.e., project documentation—raises an important question that will guide my further analysis and discussion; namely, to what extent are the practices of using PowerPoint as a presentation tool altered through its adaptation to the tasks of project documentation—or vice versa? To approach this issue, I now turn to a recent stream of theorizing in organization studies that places communication at the center of attention.

Reconstructing the PowerPoint Dilemma from a “Communication as Constitutive of Organizations” Perspective

Central tenets of the CCO perspective

A growing number of publications in the field of organization studies refer explicitly to a theoretical perspective that underscores the role of *communication as constitutive of organizations*, usually abbreviated to “CCO” (e.g., Ashcraft et al., 2009; Cooren et al., 2011; Putnam & Nicotera, 2009). Essentially, these scholars put forth the idea that organizations are formed as a network of interrelated communicative events rather than a network of individuals (Blaschke et al., 2012; Taylor & Van Every, 2000). From this viewpoint, practices of communication have *constitutive* force in that they allow processual entities such as organizations to emerge and to become stabilized over time (Ashcraft et al., 2009). Although the CCO view originated in the field of organizational communication, it has been gaining increasing traction in organization studies in general, as a number of recent prominent publications testify (e.g., Ashcraft et al. 2009; Cooren et al., 2011; Koschmann, Kuhn, & Pfarrer, 2012).

The CCO perspective can be summarized by two central tenets: first, organizations as communicative phenomena are perceived as *processual* and *precarious* in character (Schoeneborn, 2011). Accordingly, the main proponents of this theoretical perspective define organizations “as ongoing and precarious accomplishments realized, experienced, and identified primarily ... in communication processes” (Cooren et al., 2011, p. 150). This conceptualization is based on the idea that organizations emerge in and through communicative processes (e.g., conversations among organization members) that are ephemeral by nature (Hernes & Bakken). In this view, communicative events, as the main “building blocks” of organizations (Ashcraft et al., 2009, p. 7), appear not to be

very solid. Consequently, organizations need to ensure that they perpetuate and interconnect instances of communication, if they are not to disappear altogether; that is to say, it is necessary that every communicative event calls forth and is linked to further communicative events, which form and reform the organization over time (Luhmann, 2003; McPhee & Zaug, 2009).

While so far the focus of the CCO perspective has been primarily on the study of organizations, some proponents of this view suggest that the study of organizational communication should be extended to social phenomena that transcend individual organizations, such as occupations or professions (e.g., Cheney & Ashcraft, 2007; Kuhn, 2009). Following this call, McDonald (2011) argued that professions, just like organizations, are subject to continuous (re)negotiations of meaning that help constitute a professional identity by attributing certain tasks and a “way of doing things” to a particular profession. However, as Lammers and Garcia (2009) point out, professions are “literally external to an organization in which a ‘professional’ works” (p. 358). Accordingly, and with reference to the work of Abbott (1988), Lammers and Garcia define professions as “occupations characterized by formalized beliefs that specify and emerge from established practices transcending particular workplaces” (2009, p. 358). Thus, by grasping professions as external to organizations, they raise the question of how professions and organizations interrelate and maintain their boundaries communicatively without absorbing each other. How professional practices develop in organizational contexts has also been examined fruitfully in previous empirical studies that draw on a communication-centered perspective: for instance, extant studies on the “kitchen jokes” chefs make (Lynch, 2009) or on how a group of US pilots used irony as part of its campaign against contract negotiations (Real & Putnam, 2005) showcase how within certain professions rhetorical strategies may be used as a means of complying subversively with organizational demands and at the same time maintaining a particular professional identity.

Second, proponents of the CCO view explore how the stabilization of organizational and professional phenomena can be accomplished despite the precarious character of their constitutive elements, i.e., communication and the negotiation of meaning (Cooren & Fairhurst, 2009, p. 123). In response, CCO scholars have underlined the crucial role that the materialization of communicative events in the form of texts, tools, technologies, or other artifacts plays in the stabilization of both organizations and professions as communicative phenomena (e.g., Cheney & Ashcraft, 2007; Cooren, 2006; Kuhn, 2008). Even if circumstantial factors vary, “non-human entities” of this kind remain robust over time as they become detached from their authors’ intentions and the context of their creation (Kuhn, 2008). In effect, organizations and professions depend on their interaction with forms of “non-human agency” (Cooren, 2006; see also Latour, 1994) that allow them to perpetuate their existence. Consequently, as Cheney and Ashcraft (2007, p. 158) point out, “professionalism” materializes in genre affordances such as having professional business cards or using stylized PowerPoint presentations. Importantly for the present study, this theoretical viewpoint implies that communication media and genres (such as PowerPoint) are right at the core of the perpetuation and stabilization of professions and organizations, as they fundamentally affect how these social phenomena are constituted in and through communicative practices. Thus, changes in the form or function of particular media (Faulkner & Runde, 2009) directly affect the organization’s communicative constitution and possibilities of perpetuation, as we will see further on.

Reconstructing the PowerPoint genre as a site where professional and organizational communication collide

The communication-centered perspective enables us to redefine theoretically the functional dilemma of using PowerPoint in project documentation (see also Yates & Orlikowski, 2007), as

Table 1. The genre conflict of PowerPoint presentations in project documentation.

	Presentation mode	Documentation mode
Levels of communication involved	Professional communication & organizational communication	Organizational communication
Management technique	Impression management	Knowledge management
Primary narrative focus	Consistency	Contingency

outlined further up. My starting point is the assumption that the “cognitive style” (Tufte, 2003) of PowerPoint and the established practices of its usage in live presentations are closely linked with consultants’ practices of “impression management” (Glückler & Armbrüster, 2003), i.e., impressing clients favorably by creating a slideshow with a consistent, neat, and polished storyline. This assumption is supported by various indications: for instance, practical PowerPoint guidelines (see the critical discussion by Tufte, 2003) advise users to incorporate an “action title” in each PowerPoint slide, i.e., a heading that includes an imperative for action. The idea is that the sequence of these headings will form a consistent narrative; in other words, it should be possible to grasp the key messages of each slide simply by reading the stand-alone “action titles.” Another very common feature is the “executive summary” slide at the beginning of a slideshow, which is supposed to offer a concise summary of the presentation’s main storyline and “takeaways”; or the inclusion of animated slides that predefine the temporal sequencing of a live presentation.

However, when PowerPoint is used for the purposes of project documentation, contradictory demands emerge (Yates & Orlikowski, 2007). The domain of project documentation can be described as the set of communicative practices that consultants use to create competitive advantages by “capturing” the knowledge generated in past projects. Typically, such knowledge is aimed to be shared through the submission of electronic documents that relate to past projects to a database that is accessible to other consultants (e.g., Newell et al., 2006). The literature on cross-project learning and project documentation generally underscores the value of providing processual information (i.e., *how* a project was conducted) in such documents (e.g., Newell et al., 2006). This is based on the idea that the members of a firm can learn most from information on the processes involved, rather than on the mere outcomes of a finalized project. In a related stream of literature, organization scholars have put forth the idea of “learning from mistakes” (Edmondson, 1996; Zhao & Olivera, 2006). According to these authors, however, the learning value of previous projects depends on whether the exchange of project experiences among colleagues allows room for admitting past mistakes and highlighting discarded alternatives to the chosen courses of action (Schoeneborn, 2008, forthcoming), instead of being limited to “success stories.”

Table 1 summarizes the functional dilemma that arises between the PowerPoint genre’s two communication modes of presentation and documentation. It should be noted that this analytical distinction between the presentation and documentation modes is ideal-typical, as these modes do not necessarily appear in their purest forms in practice.

The documentation mode implies that a PowerPoint-based project report would need to include at least some information that is of greatest interest to the organization’s internal “audience,” i.e., its staff. For instance, a live presentation in a client meeting requires above all that the storyline is presented in a consistent and convincing manner, whereas presenting the same information to colleagues within the organization would also require that the main pitfalls and contingencies of a project are identified. In other words, the information that colleagues are likely to be most interested in (how a process was conducted, what went well or wrong in past projects, and what lessons can be learned) is not likely to be the same as the information that an external audience (e.g.,

clients) might be most interested in. Thus, when PowerPoint presentations are used in the domain of project documentation (i.e., as reports on the overview and outcomes of a particular project), it is unclear whether PowerPoint as a genre of professional communication is adapted to the requirements of documentation and, if so, to what extent, or whether the documentation domain is instead altered by the PowerPoint genre.

To explore further the functional dilemma of the PowerPoint genre (Yates & Orlikowski, 2007) in organizational practice, I will empirically examine a situation where the genre of PowerPoint enters the documentation domain, namely, the cross-project learning practices in a consulting firm (Ayas & Zeniuk, 2001; Newell et al., 2006). My empirical investigation of PowerPoint in the domain of project documentation will draw on genre theory (Bhatia, 1993, 2004; Orlikowski & Yates, 1994; Yates & Orlikowski, 1992), which places particular emphasis on the fact that communicative practices do not exist in a vacuum, but co-evolve and compete with various other neighboring communicative practices in organizational settings (Bhatia, 2004, p. 29). In a similar vein, Orlikowski and Yates (1994) suggest that entire “genre repertoires” and their inner relations should be studied.

Bhatia (2004) generally distinguishes between three ways in which a genre conflict in new domains is either resolved or perpetuated: (1) preservation of “generic integrity”—the genre that “colonizes” a given domain maintains all of its characteristics while the domain is altered as a result; (2) “generic appropriation”—the “colonizing” genre largely adapts to the features of the new domain; or (3) “generic creativity”—new, hybrid forms are generated, bringing forth changes both in the “colonizing” genre and in the “colonized” domain; as a result, the genre may differentiate into subgenres. On the basis of Bhatia’s distinction, we can derive three main propositions on how the genre conflict that arises if PowerPoint is applied for documentation purposes is either resolved or perpetuated; these are presented below and explored in further detail in the next section:

- (1) Resolving the dilemma through *generic integrity*: in that scenario, the PowerPoint genre’s main function, i.e., the presentation mode, remains stable even if the medium is applied in the domain of documentation, and the presentation practices tend to shape the documentation practices; for instance, “action titles” and a persuasive storyline are maintained even though documentation requires that vulnerable points are also disclosed.
- (2) Resolving the dilemma through *generic appropriation*: this implies that the PowerPoint genre is altered as a result of being used for documentation purposes so that it fits better the characteristic practices of the documentation domain; for instance, more words and more contextual information are included in each slide than would normally be the case in a live presentation;
- (3) Perpetuating the dilemma through *generic creativity*: here, the dilemma situation is perpetuated—for instance, through the co-existence of PowerPoint’s different functions and the compartmentalization of the genre into subgenres. In this scenario, while some subgenres would be geared mainly to the presentation mode, others would mainly cover the requirements of the documentation domain (i.e., providing more contextual information or different contents for the internal audience).

Methodology

This empirical study investigates how the PowerPoint genre is manifested in practice when it is applied for the alternative purpose of project documentation. The empirical exploration of this question helps us to understand in greater depth how communicative practices can shape and be

shaped by a new domain in organizational contexts (Faulkner & Runde, 2009; Leonardi, 2011). To explore the recurrent patterns of PowerPoint's usage in organizational practice as well as their boundary conditions, I draw on the genre theory and methodology of Bhatia (1993, 2004, 2008). The study's aim is to identify a set of PowerPoint subgenres in project documentation that can be seen as a surface realization of the underlying interrelations between professional and organizational communication in this case setting.

The consulting business is especially suitable as an empirical setting for studying the PowerPoint genre in the overlapping contexts of professional and organizational communication for two reasons: first, the typical project-based structure of consulting firms necessitates a continuous exchange of knowledge across projects (Hobday, 2000; Keegan & Turner, 2001). Second, given the pervasiveness of PowerPoint in the work practices of consultants, this industry is traditionally prone to using this software, rather than the classical genre of project report, for project documentation (Yates & Orlikowski, 2007, p. 79).

The case firm chosen for this study is one of the largest business consulting firms worldwide. The company is headquartered in North America but operates widely in Europe, Asia and other world regions. It has grown extensively in recent years, mainly due to a large-scale merger with a former competitor. The company offers a broad range of services, from strategy consulting to more specialized IT consulting. In this regard, it can be seen as a typical example of the consulting industry more generally. In the following, I will structure my methodological approach on the basis of the two main data sources used here, i.e., PowerPoint documents and qualitative interviews.

PowerPoint documents

Data collection and sampling. I collected document data on site in one of the company's subsidiaries in Germany over three months, having full access to the cross-project learning infrastructure. The company has two internal electronic databases in place that are accessible to its consulting staff worldwide. These databases were set up in order to foster communication and learning among consultants. The "knowledge-capturing process" established by the knowledge management (KM) division of the company in principle required consultants to contribute to the databases by sharing information about past projects, mainly by entering project data and attaching key documents. In this regard, the case firm primarily followed the "codification approach" (Hansen, Nohria, & Tierney, 1999), which is based on the assumption that knowledge can be easily transformed into textual documents and shared among organization members.

In order to examine the actual practices of project documentation at the case firm, I collected from the databases all types of digital project documents, regardless of file type (e.g., Microsoft Word documents, PowerPoint slideshows, Excel spreadsheets, etc.). Given the size of the two databases (database A included around 2,600 and database B around 3,800 project entries), I chose to draw and analyze a representative sample. For this purpose, I assigned an identification number to each project and then used a list of random numbers to select a sample of 640 projects, which equaled 10 percent of all project entries. Within each project entry, I selected one "primary document" from among the available pool of relevant digital documents. The key characteristic of the "primary document" was that, compared to the rest, it provided an "expertise-seeking novice" (Markus, 2001, p. 59) with the most extensive information on what the project was about and how it was executed. Following this procedure, a body of 565 "primary" project documents was included in the final sample.

Data analysis. I used the collected data to carry out a genre analysis of PowerPoint in the domain of project documentation. Genre analysis is a rich qualitative methodology that originated in the

Table 2. Operationalization of the two functional modes: presentation vs. documentation.

	Presentation mode	Documentation mode
Typical elements of live presentations (e.g., action titles, animations, lecture notes, etc.)	Included	Excluded
Quota of words per slide	Low	Medium/high
Use of graphical elements (proxy: average file size)	High	Medium/low
Primary target audience addressed	External (the client)	Internal (other consultants)

field of linguistics (Bhatia, 1993, 2004; Geisler, 2001; Zachry, 2000). The aim of this approach is to identify stable practices of usage of a particular medium on the basis of recurrent linguistic elements and typical sequences. For instance, Bhatia (1993) has analyzed the genre of sales promotion letters by identifying its main communicative purposes (persuading, capturing attention, etc.), its typical sequential structure (e.g., establishing credentials, introducing the offer, offering incentives, etc.), as well as the degree of flexibility (i.e., variations in the genre, such as obligatory and optional elements). In sum, because genre analysis focuses on the recursivity and inherent mutability of communicative practices, it is a suitable methodology for tackling the main research question posed in this paper: to what extent the PowerPoint genre is altered if the software is used for the alternative purpose of project documentation.

The aim of this analysis was to reveal the “repertoire” (Orlikowski & Yates, 1994) of the PowerPoint genre in cases where the software is used for project documentation. To identify the specific subgenres, my first step was to treat individual slides (i.e., the “pages” of the PowerPoint slideshow) as the unit of analysis. Following a process of open coding (i.e., allocating theory-sensitive concepts to distinct elements in each slide; see Strauss & Corbin, 1990) similar to the procedure applied by Orlikowski and Yates (1994), I looked for three main categories of recurrent elements and patterns in the data: (1) the primary target audience each slide addressed (e.g., internal vs. external); (2) the topic and purpose of each slide (typically derived from the slides’ headlines, which indicated whether the slide presented an executive summary, project findings, or “lessons learned”); and (3) formatting features (e.g., recurrent elements such as bullet-point lists or images). In the second step, I treated entire slideshows as the unit of analysis. This involved using sequential analysis to identify and compare typical sequences of coded elements in the PowerPoint slideshows (Bhatia, 1993), in order to trace which types of slides normally followed which other types of slides. Finally, in the third step, I focused on the level of the entire “genre repertoire” (Orlikowski & Yates, 1994): having identified similarities and differences in the sequences between the selected slideshows, I clustered them into three distinct subgenres, which I labeled using “in-vivo codes” (Strauss & Corbin, 1990), i.e., labels that were in line with the language used in the data. The three subgenres are “lessons learned,” “final presentations for clients,” and “citations of past projects.”

Table 2 depicts the theoretical distinction between the presentation and the documentation mode. Overall, I used four main indicators for the “presentation mode,” which comes closest to the PowerPoint genre’s initial function. I derived the first three indicators from Tufte’s earlier analyses (2003) of the PowerPoint genre. In addition, I devised a fourth criterion specifically designed to reflect the context of the consulting business. The four indicators involved: (1) the inclusion of typical elements of face-to-face presentations, such as the exact date and time of the presentation on the first slide, “action titles” as headings on each slide, animations of the slideshow, or lecture notes in PowerPoint’s “notes” function, (2) a comparably low quota of words

per slide, which was calculated by measuring slides and by converting PowerPoint slideshows into text files, (3) a comparably high quota of graphical elements, which was calculated by using the file size as a proxy (this figure ought to be interpreted carefully, however, because file size in bytes also depends on the version of PowerPoint), and (4) whether the slideshow primarily addressed an external audience (i.e., the client). To identify the “documentation mode,” in turn, I looked for slides where the four main indicators of the “presentation mode” were excluded or where their values were reversed.

Qualitative interviews

Data collection and sampling. To complement the genre analysis, I conducted 14 qualitative interviews with company members who were involved in the project documentation practices. The aim of these interviews was to recontextualize and to enrich the understanding of the identified genres. The interviewees were selected by drawing on the heuristic of purposeful sampling (Glaser & Strauss, 1967, p. 45) in order to cover a maximum range of perspectives on project documentation processes in the company. In other words, I deliberately chose interviewees who represented markedly different levels of the company’s hierarchy and of professional experience—for instance, from junior consultants to senior partners. The interviewees worked either as consulting professionals (seven interviewees) or in the KM support division of the company (another seven interviewees). The interviewees were based in various locations (the US, the UK, Germany, and Switzerland). Interviews were held either face-to-face or on the telephone and were conducted either in English or in German.

Among the range of possible interviewing techniques, an open narrative form was chosen that would allow to “gather descriptions of the life-world of the interviewee with respect to the meaning of the described phenomena” (Kvale, 1983, p. 174). In particular, I drew on the methodology of the “problem-centered interview” (Witzel, 2000). The idea of this approach is to stimulate narrations by addressing an issue that directly relates to the interviewees’ life-world. At the same time, this technique acknowledges that the researcher is not able to consciously “turn off” his or her theoretical preconception of the issue under investigation. Thus, it is particularly suitable for combining the deductive theoretical analysis of the functional dilemma of PowerPoint with an inductive exploration of the empirical phenomenon at hand.

A semi-structured interview manual guided the interviews; the manual included three main sets of questions: the first set of questions asked interviewees to position themselves in relation to the cross-project learning practices at the case firm. This involved various sub-questions; for instance, about their understanding of the intended use and function of the databases, about the usability of the databases for information retrieval on past projects, or about further sources of information available at the firm that could help staff make sense of past project experiences. I addressed the second set of questions especially to the consultants, asking them what motivated them to submit project documents to the databases. Other questions aimed to establish whether there were standardized procedures for submitting information to the databases and to shed light on the interviewees’ rationale behind choosing what types of document to submit. The third set of questions specifically addressed the role of PowerPoint in cross-project learning practices and asked interviewees how they distinguished between genre types and categories; the answers to these questions also allowed cross-validation of the subgenres, as identified in the data. Naturally, the interview manual evolved during the research process so that the progress of the genre analysis and further questions that emerged from the coding were taken into consideration at a later stage.

Data analysis. I finally analyzed the interview data using axial coding techniques (Strauss & Corbin, 1990) in order to identify recurrent topics across the interviews by collating them in an Excel spreadsheet (where each column represented one interview and each row compared the statements made by different interviewees on the same topic). Furthermore, this overview helped identify differences between the two groups of interviewees, consulting professionals on the one hand and KM support staff on the other.

Findings: Three Subgenres of PowerPoint in the Domain of Project Documentation

A first and crucial finding of this study was that the vast majority of digital documents in the cross-project learning databases indeed consisted of PowerPoint presentations. Of the 565 “primary documents” identified in the sample, 87 percent (i.e., 492 documents) were PowerPoint slide-shows. This is in line with Yates and Orlikowski’s assertion (2007) that in project-based organizations PowerPoint decks tend to replace the classic business report genre. The qualitative interviews provided additional evidence that PowerPoint has a pervasive role in all kinds of communication activities that consultants engage in, including direct interaction, as well as practices of project documentation. Tellingly, one consultant characterized PowerPoint as the “all-in-one weapon of the consultant’s work—and justifiably so; it’s simply the best tool for getting complex topics across when time is tight.” Its significance was further underlined by other statements such as:

There is almost no work-related communication among consultants which does not involve PowerPoint at some point ... Oftentimes, when I want to discuss something with a colleague, I simply prepare some notes in PowerPoint first and then we talk about it. (Interview statement by consultant)

Statements of this kind reconfirm the assumption that consultants tend to relate the PowerPoint genre primarily to their professional (rather than organizational) role and especially to interactions with other consultants. This finding leads back to the main research question: how the PowerPoint genre is manifested in practice when the tool is used for the alternative purpose of project documentation. Accordingly, in the further analysis, I concentrated only on the subsample of the 492 PowerPoint documents. The genre analysis (see section on methodology above) helped identify three coexistent, though distinct, subgenres of PowerPoint within the project documentation practices of the case company: (1) “lessons learned,” (2) “final presentations for clients,” and (3) “citations of past projects.” In the following, I describe each of these subgenres in more detail.

The first subgenre, which I termed “lessons learned,” corresponds most closely with the intended function of the cross-project learning databases: to enable consulting staff to share with their colleagues the expertise they have gathered during various projects. The “lessons learned” documents typically consist of two to three slides with bulleted lists that highlight the points that ought to be considered in future projects. Surprisingly, however, and although closest to the function of the project documentation domain, this subgenre proved to be the rarest of the three, representing barely 3 percent of the sample ($n = 16$).

Figure 1 shows a rather elaborate example of the “lessons learned” subgenre. As emphasized throughout the interviews by several consultants, the content of the “lessons learned” documents was typically generated through a post-project review workshop. In this particular example, the project team was split into various groups, each of which specified areas for further improvements and made general recommendations. However, as one member of the KM support division

<div> <div></div> Lessons Learned - Summary & Recommendations </div>		
Team "Project Organization" (1/5)		
	Hot Spots / Areas of Improvement (and: ☺ = Strengths)	Learnings / Recommendations
Team Structure / Language	<ul style="list-style-type: none"> English as project language caused sometimes misunderstandings ☺: No complaint about cultural mix; international team perceived as one of the main benefits 	<ol style="list-style-type: none"> Establish culture where people <u>ask</u> when they do not understand Write down content of meetings, important decisions (documentation, meeting minutes) Translate important things
Team Structure / Heterogeneous Backgrounds	<ul style="list-style-type: none"> Lack of "common language" (technical terms; business context) due to varying professional and organizational backgrounds 	<ol style="list-style-type: none"> Common project glossary explaining technical terms and acronyms Establish team "info sharing meetings"
Team Structure / Staff Turnover	<ul style="list-style-type: none"> High staff rotation on project team 	<ul style="list-style-type: none"> Make project more attractive for (internal and external) team members (personal targets, career scheme ...)
Team Structure / Staff Involvement	<ul style="list-style-type: none"> Low or no assignment / involvement of "relevant" client staff / process partners <div></div> by HQ 	<ul style="list-style-type: none"> Create pull-effect at the partners side by demonstrating them their personal benefit

Figure 1. Example of the "lessons learned" subgenre.

underlined, due to a recent merger of the case firm there was no integrated and standardized procedure in place yet on how to conduct such a post-project review:

Back then [i.e., before the mergers], we had a clear "end-of-project knowledge capture" process that usually involved some form of "lessons learned" workshops, either in personal meetings or online. ... But after the mergers ... the group grew from 300 to about 3,000 people. So the demands on KM changed a lot. Today, our focus is much more on "flashes" or "stories" of best practices ... Then, we can use those both for internal KM processes and for external marketing or project acquisition. (Interview statement by KM support member)

As Figure 1 illustrates, the documents of this subgenre include explicit reflections on how the project was executed and what can be learned from it. However, even though the main target audience of these documents was colleagues within the same firm, explicitly critical or negative evaluations of the various projects are largely absent from these documents. This is also indicated by the general tendency to couch criticisms into positively phrased statements that highlight the "lessons learned" (e.g., commonplace statements such as "establish a positive working culture" or "create a good atmosphere").

Nevertheless, as Table 3 shows (see below), this is the only of the three subgenres which primarily reflected the "documentation mode": for instance, the documents lacked the typical features of face-to-face presentations (e.g., "action titles"), they exhibited a medium quota of words per slide (94) and a medium file size (677 kilobytes) on average, and, most importantly, they clearly addressed an internal audience. In the light of the above, the fact that the "lessons learned" subgenre was the least represented in the sample can be seen as a first indication that when the PowerPoint genre is used in the domain of project documentation it hardly ever resulted in what Bhatia (2004) calls "generic appropriation," i.e., the PowerPoint genre was rarely adapted to the purposes of project documentation when used within that domain.

Table 3. Comparison of the PowerPoint subgenres (*italics indicate whether the presentation mode criteria are fulfilled*).

	Lessons learned	Final presentations for clients	Citations of past projects
Frequency in the sample	3%	35%	62%
Number of slides (mean)	3	38	1
Typical elements of face-to-face presentations (e.g., action titles, animations)	Excluded	<i>Frequently included</i>	Excluded
Words per slide (mean)	94 (medium)	101 (medium)	250 (high)
File size per document (kilobytes, mean)	677 (medium)	<i>1,332 (high)</i>	206 (low)
Target audience addressed	Internal	<i>External</i>	<i>External</i>

The second and much more frequent subgenre in the sample (35 percent; $n = 172$) consisted of what I termed “final presentations for clients”; these were presentations that are displayed and/or handed out to clients and also submitted to the internal cross-project learning databases in identical form. The documents of this type contained 38 slides on average but the range varied strongly from 5 to 266 slides (standard deviation 35). The documents of this subgenre were typically created to support presentations during face-to-face meetings with the client. This was indicated, for example, by the inclusion of the presentation’s date and location on the first slide or the use of animation effects, which are only activated during a live presentation. The slides that comprise documents of this type very often display the typical headings called “action titles,” and usually there is one slide that lays out the presentation’s agenda. Further indications stem from the interviews—as one consultant put it: “It’s a shame—the problem is that, because clients simply don’t read documents, we only present our recommendations face-to-face” (own translation from German).

Figure 2 exhibits an example of the “final presentations for clients” subgenre. The slide shown here presents the project’s “executive summary,” a succinct overview of the project’s outcome that can be easily digested by time-pressed consultants and managing partners. However, its layout illustrates the conflict between using PowerPoint for the purpose of project presentation and for project documentation. Visualizing a project’s results by means of eye-catching graphical elements (the train clipart, etc.) helps create concise presentations for face-to-face meetings with clients. In contrast to the documents of the “lessons learned” subgenre, however, these documents mostly corresponded to the indicators of the “presentation mode,” e.g., a large file size (1,332 kilobytes on average), the frequent occurrence of action titles, animations, lecture notes, etc., and external audiences as primary addressees (see Table 3). Thus, of the three subgenres identified here, this is the one that fosters most strongly the “generic integrity” (see Bhatia, 2004) of the PowerPoint genre in project documentation.

Several interviewees legitimized the common practice of submitting to the project databases the exact same documents that were presented to the client. As one consultant emphasized, this is due to time pressure and the established culture of “rushing from one project to the next.” What is more, as the same consultant explained, he and his colleagues have “no incentive whatsoever” to make the extra effort of supplementing the initial documents with information gathered after the completion of the project (e.g., notes on whether it was successful or not or critical feedback from the client). Instead, “the only incentive that drives a consultant is project utilization.” As another consultant put it: “Writing down some ‘lessons learned’ is not billable for us as consultants” (own translation from German). Consequently, activities such as extensive project documentation after a project had been completed were seen as “wasted time” or even contrary to the company’s primary

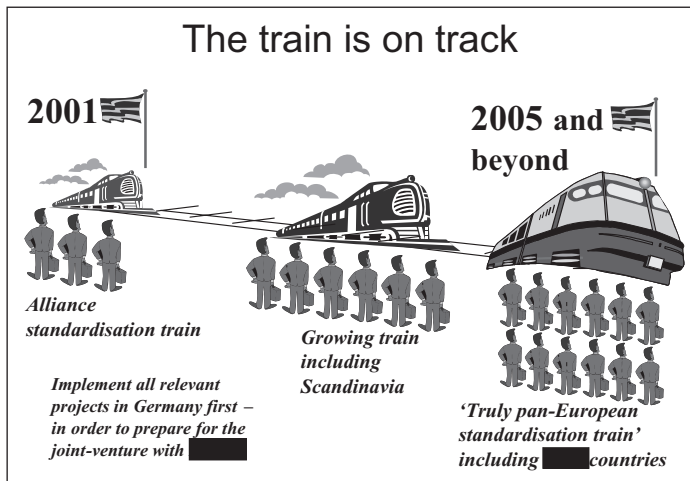


Figure 2. Example of the “final presentations for clients” subgenre.

objectives: “In an ideal case, we are supposed to be at the client’s site five days a week” (interview statement by a consultant; own translation from German). Thus, in the case firm the established practice of document reuse and recycling for multiple purposes seems to fulfill the purpose of the cross-project learning databases only superficially. In this regard, the consultants’ statements can be interpreted as an indication of the professionals’ silent resistance to the organizational requirement of having to “capture” knowledge from projects (see Corbett-Etchevers, & Mounoud, 2011).

The third and most frequent form of project-related documents, however, was the subgenre I termed “citations of past projects” (62 percent; $n = 304$). These files typically consisted of a *single slide*. Typically, these documents comprised basic information on the project, such as the type of client and industry, the problem the client was facing, the solution developed, as well as the main improvements that had been achieved, if any.

Figure 3 shows a representative example of the “citations” subgenre. The format of this type of documents was partly standardized and involved a set of similar (though not necessarily identical) questions (e.g., in this case: “what issues did the customer face,” “what solution did [the company] provide,” or “what were the results”), which were typically answered in the form of bullet-point lists. As the interviews confirmed, the documents of this particular subgenre were mainly used as boilerplate slides that can be easily inserted in proposal presentations for the acquisition of new clients. In that respect, they seem primarily to reflect the company’s efforts to acquire and start new projects, rather than to foster learning from past projects, echoing the earlier remark that the company now focuses on mere “flashes” or “stories” (rather than reviews) of best practice, which are primarily used for external marketing or project acquisition.

Interestingly, the predominance of the “citations of past projects” subgenre in the sample reveals that, although the cross-project learning databases were set up primarily for sharing detailed knowledge and expertise from past projects, this function was undermined by its actual usage. On the one hand, the “citations of past projects” subgenre exhibits some of the features of the presentation mode, particularly the presentation of “best practices” and “success stories” aimed at winning over future clients. On the other hand, however, it is characterized by the highest rate of words per slide (250 words on average) and the lowest file size (206 kilobytes), compared to the other two subgenres. Consequently, this subgenre can be regarded as what Bhatia (2004) described as a

■■■ provides Collaborative Product Commerce solution resulting in operational benefits including an estimated US\$31 million in savings	
CPC Solution implementation - The focus of CPC is on product design activities and product life cycle management	
What issues did the customer face?	<ul style="list-style-type: none">■ As an outcome of an earlier engagement, in which ■■■ developed a technical roadmap for the company, ■■■ determined to move forward with the selection and implementation of a Collaborative Product Commerce (CPC) Application to reduce time-to-market, increase product life cycle capacity, lower development costs, improve relations with suppliers and reduce costs of supplies.
What solution did ■■■ provide?	<ul style="list-style-type: none">■ ■■■ contracted ■■■ to select and implement the CPC as one solution engagement.■ ■■■ evaluated numerous application packages available in the marketplace and recommended ■■■ as the best CPC solution.
What were the results?	<ul style="list-style-type: none">■ ■■■ was very pleased with the ■■■ selection and implementation process, and expects to realize up to US\$31 million in cost reduction benefits over the first three to five years of the product life.

Figure 3. Example of the “citations of past projects” subgenre.

product of “generic creativity”; i.e., a “hybrid” subgenre that combines features of both the presentation mode and the documentation mode.

Given that the slideshows of this type are very brief (one slide only) and mostly focused on the presentation of mere outcomes and not on the processes involved in past projects, compared to documents of the other two subgenres they provide an expertise-seeking novice with the comparably least detailed information about how a project has been executed. One could argue, of course, that most context-reduced documents can still help identify which colleagues to contact in order to gather information about past projects—a point that was raised in the interviews. As one of the managing partners asserted: “In our business, verbal communication is the number one communication channel” (own translation from German). Nevertheless, other consultants stressed in the interviews that, when they tried to make the most of knowledge gained during past projects, they often found it hard to get directly in touch with former team members, because of high rates of staff turnover in the consulting business in general and this firm in particular. Again, this finding highlights the difficulty of recontextualizing PowerPoint presentations in the databases. As one of the interviewed consultants remarked: “So far we have been creating a pile of documents in the databases, but these are not organized or put into context at all.” This statement underlines the general skepticism with which consultants view the organizational requirements they are expected to meet and the frustration they often experience as a result (see Robertson & Swan, 2003).

To summarize, Table 3 (see above) compares and contrasts the three subgenres I identified in this study. The table shows that the “final presentations for clients” subgenre clearly fulfills the criteria of the “presentation mode” (cells shaded in gray), even though the number of words per slide is generally higher than one might expect on the basis of Tufte’s findings (2003). In contrast, the “lessons learned” subgenre leans towards the documentation mode, primarily because these slides clearly address an internal audience and do not tend to feature the characteristics of face-to-face presentations (e.g., lecture notes). Interestingly, the “citations of past projects” subgenre combines many features of the documentation mode with a clear focus on external audiences (i.e., future clients to be acquired) and thus represents a hybrid form.

Finally, I will outline two important additional findings from the interviews that will prove valuable for understanding how PowerPoint is used for the purposes of project documentation. First, many interviewees were critical of the fact that, since the last large-scale merger, the usefulness of cross-project learning practices was diminished by the lack of standardized procedures for capturing knowledge: "Our documentation processes are not yet integrated into a company-wide project-management standard procedure" (interview statement by consultant). This view was cross-confirmed by a member of the KM support division: "There's definitely a lot of uncertainty about what is allowed to be submitted [to the databases] and what isn't. All this was much better at [the company which was acquired in the merger], where we had sound standards" (own translation from German). Second, the collective feeling of uncertainty due to the lack of standardization adds to the general frustration and to the skepticism about the usefulness of the cross-project learning databases:

The project profiles [i.e., the cross-project learning databases] certainly had a problematic status right from the start because their content was not validated in terms of quality. [...] This is how a lot of "junk" entered the database. (Interview statement by KM support member; own translation from German)

Several consultants shared this view, expressing doubts about the usefulness of the documents included in the databases. Accordingly, they did not feel any guilt about flouting the data requirements by reusing the documents they had created for the client. To conclude, in the case firm, because of the lack of standards on how to conduct project documentation, it was possible for the PowerPoint genre to maintain its generic integrity to a large degree, even when it was used for the alternative purpose of project documentation. Thus, if we perceive PowerPoint's use in project documentation as a site where the affordances of professional and organizational communication collide, the PowerPoint genre's professional (rather than organizational) affordances appeared to predominate. In the following, I discuss this central finding in relation to the existing literature.

Discussion and Conclusions

The empirical analysis of project documentation practices at a multinational business consulting firm has provided evidence for the pervasiveness of PowerPoint in this domain. In this study, I found that when PowerPoint is used for documentation purposes three distinct subgenres can be identified; namely, "lessons learned," "final presentations for clients," and "citations of past projects." Importantly, the "citations of past projects" subgenre was found to represent the most frequent type of slideshows in the sample. It is worth noting that this subgenre primarily aimed at supporting the acquisition of new projects rather than learning from past projects. Evidently, in the case firm the consultants treated the cross-project learning database largely as a useful tool for sharing very brief snapshots of "best practices" that they could utilize for project acquisition, even if the manner in which they chose to upload data undermined the purpose of the databases to some extent. As the interviews that supplemented the analysis furthermore revealed, their attitude stemmed from a general skepticism towards the KM division's practices and a lack of clear-cut standards on the usage of data (see Corbett-Etchevers, & Mounoud, 2011). To put it in the terms of Bhatia (1993), the data yielded a few rare instances of "generic appropriation" (as represented by the "lessons learned" subgenre) but many more instances of "generic integrity" ("final client presentations" subgenre) and "generic creativity" ("citations of past projects" subgenre), both of which fostered the professional genre's focus on the presentation mode.

This theoretical and empirical inquiry into the role of the PowerPoint genre in the domain of project documentation contributes to three strands of literature: first, this paper adds to emerging discussions on the role of PowerPoint as a medium and a genre of organizational communication (e.g., Gabriel, 2008; Kaplan, 2011). In line with the observations of Yates and Orlikowski (2007), this case study revealed that the PowerPoint software was indeed the medium of choice for project documentation at the case company. In this regard, my study reconfirms earlier theorizations that the use of PowerPoint tends to extend beyond its initial purpose of facilitating live presentations, as the software is often applied for sharing digital documents (Stark & Paravel, 2008; Yates & Orlikowski, 2007).

However, in contrast to the findings of Yates and Orlikowski (2007), in this case study the “genre conflict” of PowerPoint between the presentation and documentation functions did not translate into a functional dilemma in practice. As the empirical analysis has shown, this conflict was resolved through an asymmetric emphasis on the presentation function, rather than on the documentation function. In other words, although the analyzed cross-project learning databases were initially set up for the purpose of exchanging knowledge within the company (which corresponds to the documentation mode), they consisted mainly of PowerPoint documents that were created for the purpose of external communication (which corresponds to the presentation mode). Thus, this study showcases a situation where the established professional genre of PowerPoint maintains its generic integrity even when the tool is used in the domain of project documentation (an instance of organizational communication), which poses different demands. In this regard, the study points to the need for further research into how a genre develops in an institutionalized setting with contradictory demands (such as organizational and professional requirements) and into its interrelations with neighboring communicating practices.

Second, this study addresses the more general question of what happens when a sociomaterial practice (Orlikowski, 2007) expands into a new domain beyond its intended use or function (Faulkner & Runde, 2009; Leonardi, 2011). The works of Bhatia (1993, 2004) and Orlikowski and Yates (1994) invite us to look at how genres of organizational communication interact with related genres and communicative practices in organizations. In this context, the trinity of generic integrity, appropriation, and creativity which Bhatia introduced (2004) has proven analytically helpful. However, the existing works on this subject do not specify the boundary conditions that make it more (or less) likely that one of these three possible process outcomes will occur in practice. Bhatia himself has called for further inquiry in this direction, pointing out that, because genres typically go beyond organizational boundaries (Bhatia, 2008, p. 170), they can form a crucial nexus of organizational and professional communication.

Drawing on recent works by Faulkner and Runde (2009), as well as Leonardi (2011) on the use of technologies in neighboring domains, this study has explored a case where professionals—in this case, consultants—are confronted with organizational affordances—in this case, project documentation. My study provides evidence that, overall, these professionals tend to use a communicative practice (manifested in the project documentation) that is strongly linked to their professional identity and allows them at least ceremonially to comply with their organization’s requirements. In this regard, this study adds to earlier research on the struggle many employees face in their effort to balance tensions between the autonomy of project-based work on the one hand (Scarbrough et al., 2004) and organizational demands and control on the other hand (e.g., Robertson & Swan, 2003). Similarly, Corbett-Etchevers and Mounoud (2011) demonstrated the tendency of employees to respond to organizational affordances of knowledge management with minimal effort. In the present study, the practice of consultants, as it emerged, was to simply submit their PowerPoint slides to the databases, which they considered neither very useful nor relevant to their work (see

interview statements above). This can be interpreted as a silent form of resistance to or even subversion of organizational demands (see also the studies by Lynch, 2009, and Real & Putnam, 2005).

The theoretical and empirical investigation presented here allows to specify the boundary conditions under which a genre of professional communication such as PowerPoint can preserve its core character even in the face of contradictory organizational affordances. More precisely, the permeation of an organizational domain of practices by a professional genre is particularly likely when the three conditions described below apply simultaneously:

- (1) *When the permeating genre (e.g., PowerPoint) is deeply ingrained in the day-to-day work practices of a profession* (Devitt, 1991). Importantly, I assume this effect to be particularly strong in the case of weakly defined professions, such as consulting or management (Khurana, 2007), i.e., where the communicative practice is largely taken for granted and plays a key role in the constitution of this profession's identity and boundary (e.g., PowerPoint for consultants), at the same time.
- (2) *When the target domain lacks strong standardization.* This case study showed that in the weakly defined and non-standardized domain of project documentation, a strong and ubiquitous practice of professional communication, such as the PowerPoint genre, is likely to impose its genre characteristics on other domains of organizational communication.
- (3) *When the genre usage allows the members of the organization to comply at least ceremonially with the requirements of the target domain.* However, as shown in this case study, this is possible only if the requirements of the target domain are not strongly enforced (e.g., through monitoring or sanction mechanisms) and if the source and target domains are structurally similar enough to allow for such ceremonial compliance. As Van Maanen (1983, p. 31) puts it, "given a degree of similarity between an old and a new activity, the new will be approached in much the same way as the old."

Finally, this study also contributes to the emerging CCO perspective in organization studies (Ashcraft et al., 2009), showing how the CCO view can be fruitfully applied to examine instances where affordances of professional and organizational communication collide. The empirical study demonstrated that, especially because communicative practices are constitutive both of professions and organizations, the organization faces challenges trying to maintain its boundaries in and through communication. More specifically, the organization runs the risk of being absorbed or superimposed by professional communication practices that prevail across various organizations, as exemplified by PowerPoint's predominant role in the project documentation domain. This finding points to other important topics that are worth further investigations—for instance, the effects of such genre entanglement on the co-evolution of organizations and professions. In this respect, my study follows the recent call by Cooren (2012) and other scholars to extend the scope of the constitutive view on organizations and explore broader social phenomena, such as professions (Cheney & Ashcraft, 2007), inter-organizational settings (Koschmann et al., 2012), or social movements (Sillince, 2010). At the same time, this study points to the need for further investigation into the differences that underlie the communicative constitution of these social phenomena.

Moreover, this study provided further tentative evidence for the agency of non-human entities such as PowerPoint, as hypothesized by scholars of the CCO view (e.g., Cooren, 2004, 2006; Kuhn, 2008). The PowerPoint genre remained robust to a large degree even when the software was used for the alternative purpose of project documentation. This suggests that the established practices of PowerPoint usage tended to shape the project documentation domain rather than the other

way around. However, while the proponents of the CCO view tend to grasp non-human actors primarily as a source of organizational stabilization (e.g., Cooren & Fairhurst, 2009), this study indicates that PowerPoint texts can serve as a source of both stabilization and destabilization at the same time. In the case firm, each PowerPoint document that was submitted to the cross-project learning databases had a dual effect: on the one hand, it re-enacted the genre as a recurrent communicative practice and stabilized the nexus of professional and organizational communication, while, on the other hand, it had a destabilizing effect that was manifested in two ways: first, it rendered past project processes invisible, instead of visible (see also Schoeneborn, 2008, forthcoming); second, it hampered, instead of enabling, the consultants' ability to reconstruct the interactions and conversations that constituted a project in the first place and that largely remained "hidden beneath" the PowerPoint slides. By emphasizing the destabilizing features of communicative practices, my study can be seen as a response to a recent call by Kuhn (2012) to look not only at the ordering but also at the disordering features of communication as a key element in the constitution of organizational phenomena.

On a final note, I would also like to outline the main limitations of this study: the largely qualitative methodology is limiting in that it allowed me to study a single case organization—which was characterized by a low degree of standardization—in a specific setting. Thus, the generalizability of the study's findings will need to be validated by further studies in comparable contexts. In light of my theoretical reflections on the communicative constitution of both organizations and professions, I believe it will be particularly fruitful to explore further instances of collision between affordances of professional and organizational communication. Ideally, this will help illuminate the boundary conditions under which genres can pervade neighboring domains and impose their features on them. A second limitation results from the fact that the analysis was primarily document-centered and could only trace parts of the process that had led to the creation of a particular document (through its recontextualization in interviews). Future research could benefit from applying different methodologies (e.g., by drawing on ethnography) in order to dig deeper into the micro-processes that constitute stability or change in the "genre repertoire" (Orlikowski & Yates, 1994) at the intersection of professional and organizational communication.

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